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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,814

06/07/2005

Teruo Mori

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ALEXANDRIA, VA 22320-4850

EXAMINER

DOUGHERTY, THOMAS M

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,814	Applicant(s) MORI ET AL.	
	Examiner Thomas M. Dougherty	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>605</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 never definitively claims "a vibrator". Consequently its inclusion twice in the claim is confusing.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14-24 and 28 as they are best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al. (JP 03-285577). Kobayashi et al. show (fig. 1) a vibrating device (15) having: a housing (7) supported by a base (10, 11) and capable of oscillating relative to the base (10, 11) in a vibration frequency range of a vibrator; and an expandable rod (2) that can expand and contract, one end of which is fixed to the housing (7), and the other end of which is a free end (either of 9a or 9b) contacting the base (10, 11), wherein the base (10, 11) is resonated by oscillation of the housing (7) in the vibration frequency range of a vibrator, and the base (10, 11) is vibrated by expansion and contraction of the expandable rod (2) in a sound frequency

range other than the vibration frequency range of a vibrator, as that description is best understood.

The housing includes an inertial mass member (4a, 4b), and the one end of the expandable rod (2) is fixed (by flange members 5a, 5b) to the inertial mass member (4a, 4b).

The housing (7) is supported on the base (10, 11) by a support member (12) having vibration transmission characteristics that allow oscillation of the housing (7) in the vibration frequency range of a vibrator and restrict oscillation of the housing in the sound frequency range. Note that the frequency range and the ability to restrict oscillation to a particular frequency range is a goal of the invention. As Kobayashi et al. show the claimed structural features this is regarded as a goal that is met by them.

The support member (12) supports part of the housing (7) such that the housing (7) can oscillate around the vicinity of the part acting as a fulcrum point, and supports another part of the housing (7) a distance away from the part via a resilient member (14) having the vibration transmission characteristics. See lines 8-10 of the translated CONSTITUTION.

The support member (12) supports the housing (7) in a suspended state such that the housing can oscillate around the free end of the expandable rod acting as a fulcrum point, and has a resilient member (14) having the vibration transmission characteristics in a direction of oscillation (note that 14 is parallel to 7 in the longitudinal direction) of the housing (7).

At least part of the expandable rod (2) is formed of a displacement rod (2) made

of a displacement element. Note that it is magnetostrictive, see the CONSTITUTION.

The device further includes a biasing magnet (6a, 6b) arranged at both axial ends of the displacement rod (2) made of the magnetostrictive member, for applying a bias magnetic field to the displacement rod (2) in an axial direction; and a magnet coil (3) arranged to surround the displacement rod (2), for causing the displacement rod (2) to expand and contract by controlling intensity of the applied magnetic field.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 and 27, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (JP 03-083228) in view of Mori (US 7,196,437).

Given the invention of Kobayashi et al. as noted above, they do not note the type of magnetostrictive element that they employ for their displacement rod.

More shows (abstract page figure) a displacement rod (12) that is made of a magnetostrictive element including a giant magnetostrictive element (see col. 5, ll. 49-55).

It would have been obvious to one having ordinary skill in the art to employ the base element of Kobayashi et al. in Mori's device which would thus include a

displacement rod that is made of a magnetostrictive element including a giant magnetostrictive element in order to allow the device to be employed in doing useful work as Kobayashi et al. show. Alternatively it would have been obvious to use a giant magnetostrictive element in a device like that of Kobayashi et al. since this material has a displacement amount that is significant as Mori teaches at col. 5, ll. 49-55).

Claims 29-33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kobayashi et al. (JP 03-285577). Given the invention of Kobayashi et al. they further show their vibrating device within a casing (7) as noted above.

They do not note its intended use in a mobile phone, as a speaker of a receiver, as a speaker of a call alert buzzer, or as a vibrating member of a call alert vibrator. They further don't note a receiver that is a bone conduction speaker.

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Allowable Subject Matter

Claim 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2834

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or fairly suggest **placement of the free end of the transmission rode at a position offset from an axial center of the displacement rod.**

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining prior art reads on some aspects of the claimed invention.

Direct inquiry to Examiner Dougherty at (571) 272-2022.

/T. M. D./

/Thomas M. Dougherty/

tmd

Primary Examiner, Art Unit 2834

March 6, 2008